
*Survey of Women Physicians
Graduating from Medical School
1925—1940*

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Survey of Women Physicians Graduating from Medical School 1925 — 1940¹

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A. INTRODUCTION

IT IS USUALLY possible to start a lively debate by asking a group of medical educators whether or not they consider it a waste of resources to give women a medical education. Negative arguments such as the following are heard: marriage forces too many women physicians to abandon medical work; women are not strong enough to endure the rigors of medical work; and women belong in the home. Positive arguments lie on a continuum ranging from the assertion that women carry on just as much medical work as men to the assertion that discrimination (against women) smacks of medievalism.

This study presents data on many of the questions that are raised in regard to medical education for women. The findings, along with those of previous investigators, support the value of educating women physicians. The results found here, however, indicate that women physicians do practice less than men—less in fact than some other studies on women physicians have indicated.

The main objective of the present study is to appraise the extent to which medical education is utilized by women physicians, but a variety of information on their characteristics, interests, and attitudes is also presented. For example, one characteristic of women who enter medicine appears to be that, compared with women in general, a smaller percentage marry. More than one-third are single, and another 11 per cent are widowed, separated, or divorced. It was also found that both men and women physicians would more readily recommend medicine for a son than for a daughter, frequently because they feel medicine may lack social reward and lead to family conflict for women.

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Several studies of women physicians have been made, some of them concerned with the question of whether or not women utilize their medical education. The following paragraphs discuss some of the findings of these studies. It should be pointed out that several of the projects have suffered to some extent from one or more inadequacies: a control group of men, matched on the basis of the period of graduation from medical school, has not been used; the definitions of full-time practice have been ambiguous; the studies have been restricted to particular medical schools or geographical area.

Reports vary in their estimation of the number of women physicians in full-time practice, but a figure in the 80 to 90 per cent range is usually reported (1, 4, 7-12, 15-17, 19). These estimates are high compared to the 49 per cent found in the present study, apparently because of the ambiguous definition of full-time practice. No past study, to our knowledge, has attempted to estimate the number of hours that a woman physician spends in practice each year. In one leading study (7, 9, 10) women described in the records of the American Medical Association as "not in practice" were tabulated as being in full-time practice.

Investigators differ in their indications of the fields of medical specialization chosen by women, but this may be attributed in part to the different periods of time covered in various studies. Generally, pediatrics, psychiatry, internal medicine, and obstetrics and gynecology have been listed most frequently as the popular areas of medical specialization for women, which is, except for shifts in order, consistent with the findings of the present survey. Estimates of the number of women who are certified vary also; in general, however, they show that about one-fourth of the women are certified.

A recent study by the writers (6) on the accomplishment of medical school students showed that 13.5 per cent of the women who entered the 1949-50 freshman class withdrew from medical school and did not return. The corresponding proportion for men was 8.2 per cent. A small group of students, 4.6 per cent of the men and 5.3 per cent of the women, attended medical school on a part-time basis, or withdrew and later returned to school. Thus, approximately 87 per cent of the men and 81 per cent of the women in this 1949-50 class completed their medical education in the normal four-year period. It was also found that women medical students have slightly lower average grades than men, particularly in the senior year. Although the average scores of the women were higher than the average scores of the men on the verbal section of the Medical College Admission Test, men did appreciably better than women on the quantitative section and slightly better than women on the modern society and science sections of the test.

Weinfeld (20), studying income, reported that about 22 per cent of men physicians had salaried positions in 1949, with about twice as many of the women receiving salaries. The present study is not strictly comparable because medical work was classified by major and secondary type.

About one-third of the women in this study indicated salaried employment as their major type of medical activity. In agreement with the present study, Weinfeld found that: a relatively greater number of women than men established their medical practice in the very large metropolitan communities, where average incomes are apparently lower than in communities of moderate size; a higher proportion of women than men are employed on a part-time basis; and a higher proportion of women than men enter the less lucrative specialties. Dickinson (5), who aided Weinfeld, has published additional data on the income of physicians.

Two other studies of interest are those of Travell, Reid, and Clapp (17) and Williams (25). The former aimed at determination of the ways in which physician-mothers solve their household problems, and Williams, who has done the best study from a methodological point of view, investigated the minority group status of women physicians.

Additional sources of information on medical women are the annual education number of the *Journal of the American Medical Association* (18), the 1955 and 1956 editions of *Admission Requirements of American Medical Colleges* (14), and annual applicant studies (13) of the Association of American Medical Colleges.

B. DESCRIPTION OF THE GROUP STUDIED

A sample of physicians practicing medicine in the United States, who had graduated from medical school in the period between 1925 and 1940 inclusive, was systematically selected from the files of the American Medical Association. Every other woman and approximately every sixtieth man were selected and a questionnaire was mailed to each. (This questionnaire is reproduced at the end of this publication.)

A plan of successive mailings was instituted to follow up the nonrespondents. All mailings emphasized the importance of the questionnaire. There were four separate mailings, as follows:

1. June 15, 1953: Initial mailing—questionnaire mailed to all physicians on the selected mailing list supplied by the American Medical Association.
2. August 1, 1953: First follow-up—second questionnaire mailed to nonrespondents.
3. September 21, 1953: Second follow-up—third questionnaire mailed to remaining nonrespondents.
4. February 1, 1954: Third follow-up—fourth questionnaire and post card mailed to remaining nonrespondents. (The post card asked recipients who did not have time to fill out the whole questionnaire to supply information on the number of years they had been in medical practice.)

Table 1 gives data on questionnaire returns. In all 1,824 women and 1,098 men, both U.S. and foreign, received the questionnaire. The original

TABLE 1
BREAKDOWN OF PHYSICIAN RESPONSE

Response	Women physicians				Men physicians				Total			
	U.S.		Foreign		U.S.		Foreign		U.S.		Foreign	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Returned questionnaire	1,040	67.2	145	52.6	697	69.7	66	67.4	1,737	68.2	211	56.4
Returned post card	69	4.4	23	8.3	53	5.3	7	7.1	122	4.8	30	8.0
Did not respond	439	28.4	108	39.1	250	25.0	25	25.5	689	27.0	133	35.6
Total	1,548	100	276	100	1,000	100	98	100	2,548	100	374	100

mailing list contained 3,335 men and women, but 413 of these were eliminated for the following reasons: 231 had not graduated in the period 1925 to 1940, 92 were deceased, and 90 had moved and current addresses were not available. Of the 1,548 women educated in U.S. medical schools, 1,040 (67.2 per cent) answered the questionnaire, and of the 1,000 men educated in U.S. medical schools, 697 (69.7 per cent) replied. The difference between the proportion of U.S. men and the proportion of U.S. women answering the questionnaire is probably attributable to chance fluctuations in sampling ($p > .10$).² Physicians in the post-card group were considered nonrespondents.

A problem requiring consideration in studies of this nature is the bias introduced by nonrespondents. Bias was estimated in two ways: by contrasting respondents and nonrespondents using the data supplied to us by the American Medical Association for every physician on the original mailing list, and by comparing the returns from the separate mailing groups.

The AMA data permitted two contrasts: (1) questionnaire data from respondents versus AMA data for nonrespondents, where the information asked by the questionnaire could also be found in AMA records, and (2) respondents versus nonrespondents on the basis of the AMA data alone. Both types of contrasts were made.

The AMA's detailed records on nearly all physicians practicing in this country were available to us. However, since these were based on information current in 1950, there was a time lag of about three years between the time the AMA data was collected and the time of our questionnaire. Although this time lag raises a question concerning the usefulness of comparing questionnaire data from respondents and AMA data for nonrespondents, the comparison was believed justified by the fairly good agreement that was found between the AMA data and the questionnaire data for respondents. Thus, several tables contrasting respondents and nonrespondents are presented in this paper; in each case the tabular reports are based on questionnaire data for respondents and AMA data for nonrespondents.

It is impractical to give a detailed account of the results obtained in our study of bias, but these data are on file with the American Documen-

²All tests of statistical significance made in this study utilized the chi-square technique.

tation Institute.³ It is sufficient to state that respondents differed significantly from nonrespondents on nearly all items for which a comparison was possible. Similarly, the four separate mailing groups appeared to be independent populations. Thus, no one mailing group could be used as representative of nonrespondents. Despite the significant statistical differences, the actual differences between respondents and nonrespondents were not large.

C. RESULTS

This paper is restricted to physicians who were educated in medical schools in the United States proper and were practicing medicine in this country at the time of the study. Certain matching tables for the foreign group are available through the American Documentation Institute. The term "practice of medicine" as used here refers to all medical activities of physicians—treatment of patients, teaching, research, administration, time spent in receiving training, and volunteer activities.

Answers were accepted as given, and complete consistency of each person's answers was not obtained. In some cases, and these will be noted in the paper, AMA data were used to supplement questionnaire information.

1. General Characteristics of Physicians Surveyed

Figure 1, a cumulative percentage distribution, gives information on the age ranges of U.S. respondents and nonrespondents. This graph is divided into three parts: the upper section compares women respondents with women nonrespondents; the middle section is a similar comparison for men; and the lower section compares all women (combining both respondents and nonrespondents) with all men. The base year for computing age was 1953.

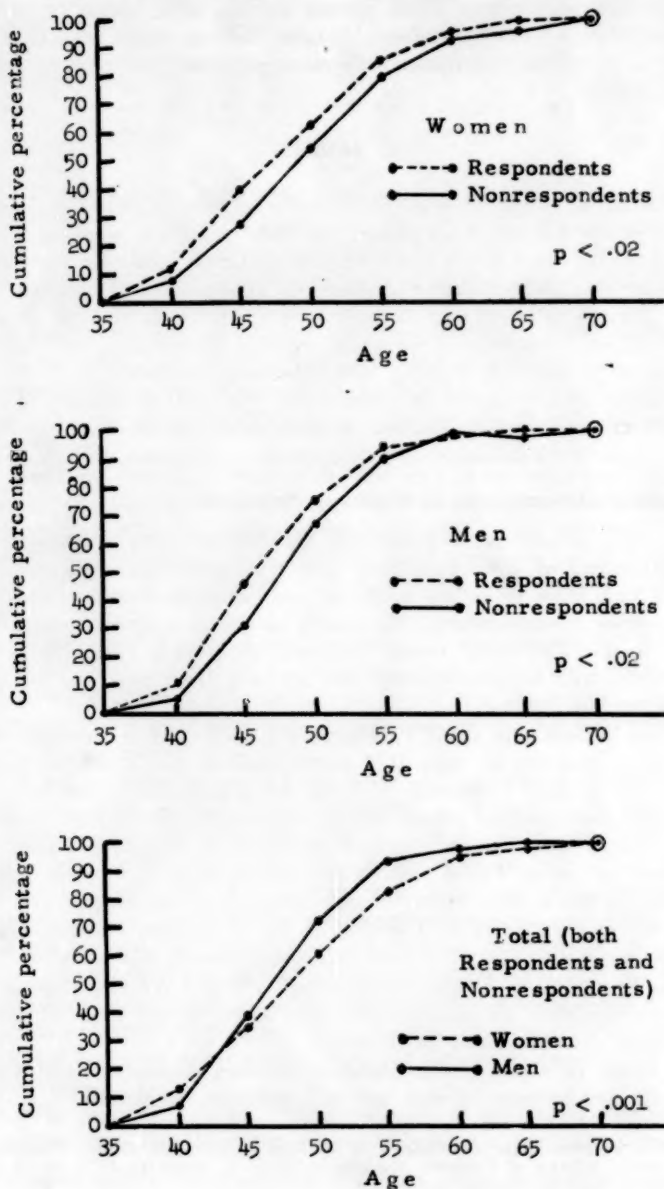
It can be seen that the U.S. respondents, both men and women, were younger on the average than U.S. nonrespondents, i.e. a greater proportion of the younger physicians returned the questionnaire. Men who had graduated from medical school during the period 1925 to 1940 inclusive were younger than women who had graduated in this same period, e.g. the lower section of Figure 1 shows that 93 per cent of the men and 82 per cent of the women were less than 55 years of age at the time they answered the questionnaire. The median age of all men was less than 47 and the median age of all women was approximately 48. All the curves tend to be positively skewed, and although the variances for respondents and nonrespondents are approximately equivalent, the curve for all women is smoother than the curve for all men.

As shown in Figure 1, the differences between respondents and nonrespondents and between all men and all women are statistically significant,

³Order Document No. 5114 from ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress, Washington 25, D. C., remitting \$1.75 for 35 mm. microfilm or \$2.50 for photoprints.

Figure 1

Cumulative Percentage Distributions of Physicians by Age



but from a practical point of view the differences are not great. Comparing the total group with the respondent groups of either sex, the largest percentage difference for any single age range of five years is 3 per cent and most are within 1 per cent. For purposes of this study, nonresponse does not create a serious problem, and these small differences are certainly tolerable. However, if one's purpose were to estimate the total number of men and women in each age range in the total population of physicians, such small percentage differences as found here would result in fairly large errors.

Table 2 gives information on the sizes of communities in which physicians practice. The *World Almanac* (1953) was used to classify communities into 10 groups according to population. It should be noted that the percentages in all tables have been rounded to total 100 per cent. The corrections were made by adjusting the percentages computed for the cells containing the highest frequencies, and the correction was rarely greater than .1 per cent. The differences in Table 2 between respondents and nonrespondents and between all women and all men are statistically significant ($p < .01$ in each case), but the greatest discrepancy between respondents and totals in any community-size range, despite the statistical significance, is about 2 per cent.

A slightly higher proportion of men than women physicians had settled in communities having fewer than 500,000 inhabitants, or what amounts to the same thing, a slightly higher proportion of the women had chosen the very large metropolitan areas. Weinfeld (20) had previously reported the same trend. The combined data for U.S. respondents and nonrespondents compare favorably with Weiskotten's (23, 24) graduates, which provides a further verification of the adequacy of the U.S. group.

Table 3 indicates the geographical distribution of men and women physicians and is based on both the questionnaire response and data supplied by the American Medical Association, i.e. where questionnaire data were not available the AMA data were used. The country has been divided into nine regions for purposes of this analysis, and the regions are presented in descending order according to per capita income. Some explanation may be helpful in reading this table because two kinds of information can be obtained: (1) the region of medical practice of those educated in each region and (2) the region of education of those who established practice in each region. Percentages printed in italics show the first kind of information, and percentages printed in regular type show the second kind; there are two sets of figures in each cell of Table 3.

By looking along any row of the table it is possible to see where the physicians educated in a given area established their residence by reading the italic percentages in each column. Look, for example, at the row for Middle Atlantic states in the women's section at the top of the table. Of the 493 women physicians who were educated in this region (see the total column), 69 per cent established residence in the Middle Atlantic, 6.7 per cent in the Pacific, and so on. It is probable that many of the physi-

TABLE 2
SIZE OF COMMUNITY FOR RESPONDENTS AND NONRESPONDENTS

Group	Population of community										Total N
	0- 2,499	2,500- 4,999	5,000- 9,999	10,000- 24,999	25,000- 49,999	50,000- 99,999	100,000- 249,999	250,000- 499,999	500,000- 999,999	1,000,000- and over	
Women physicians											
Respondents	101	34	56	91	99	91	105	81	150	232	1,040
Number	9.7	3.3	5.4	8.7	9.5	8.7	10.1	7.8	14.4	22.4	100
Nonrespondents	49	25	24	60	36	47	33	60	52	122	508
Number	9.6	4.9	4.7	11.8	7.1	9.3	6.5	11.8	10.2	24.1	100
Per cent											
Total	150	59	80	151	135	138	138	141	202	354	1,548
Number	9.7	3.8	5.2	9.8	8.7	8.9	8.9	9.1	13.0	22.9	100
Per cent											
Men physicians											
Respondents	63	37	45	68	77	81	78	66	81	101	697
Number	9.0	5.3	6.5	9.8	11.0	11.6	11.2	9.5	11.6	14.5	100
Nonrespondents	49	18	19	33	21	25	20	36	24	58	303
Number	16.2	5.9	6.3	10.9	6.9	8.3	6.6	11.9	7.9	19.1	100
Per cent											
Total	112	55	64	101	98	106	98	102	105	159	1,000
Number	11.2	5.5	6.4	10.1	9.8	10.6	9.8	10.2	10.5	15.9	100
Per cent											

cians living in the same area as their medical school had lived there before starting the medical education, but information on this important variable was not available; see the Weiskotten and Altenderfer study (24). Turning to the men's section of the table, it can be seen that of the 210 men educated in the Middle Atlantic region, 61.5 per cent had settled in this region. The difference between the percentages of the total physician group that were educated in the Middle Atlantic (31.9 per cent of 1,548 women and 21 per cent of 1,000 men) is sufficiently large to indicate that the Middle Atlantic states had educated a disproportionate share of the women as compared with the men physicians. This is probably due largely to the fact that the Middle Atlantic states have the only medical school that restricts itself exclusively to women, the Woman's Medical College of Pennsylvania. The Middle Atlantic states lost 6.7 per cent of the women and 5.7 per cent of the men that it had educated to the Pacific Coast region.

By reading down any column of the table, it is possible to see by the nonitalic percentages where the physicians residing in a given region had received their medical education. Turning to the column headed Middle Atlantic, it can be seen that the present survey included 468 women from this region. It was pointed out above that 493 of the women physicians in the survey had been educated in this region, and thus the Middle Atlantic had educated 25 more women physicians than the number residing there. On the other hand, the Middle Atlantic region had a net gain of 22 men physicians. A higher proportion of the women (72.5 per cent of 468) than the men (55.6 per cent of 232) residing in this region had been educated there.

To summarize some of the more evident trends reported in Table 3: (1) on the average a higher proportion of the graduates of a given region were attracted to adjacent regions than to regions located at a distance; (2) the Pacific and the Middle Atlantic regions had attracted a high proportion of physicians from other regions, irrespective of distance; (3) the New England, Mountain, South Atlantic, and East South Central regions had educated less than half of the women physicians who practiced in these areas; and (4) the Pacific, Mountain, and East South Central regions had educated less than half of the men physicians who practiced in these areas.

Weiskotten and Altenderfer (24) present data indicating that the site of the ultimate residence of a physician is related to per capita income, location of the medical college and the nature of its support (private or tax supported), the place of residence of the student before entering medical college, and the place in which a medical school graduate serves his internship. Of these, previous residence was the most important in determining the location of practice.

TABLE 3
PERCENTAGE DISTRIBUTION FOR REGION OF MEDICAL EDUCATION IN RELATION TO PHYSICIANS' RESIDENCE*

Region of graduation from medical school (education)	Region of medical work (residence)								Total educated in each region		
	Middle Atlantic	Pacific	East North Central	New England	West North Central	Mountain	West South Central	South Atlantic	East South Central	No.	%
Percent of women physicians											
Middle Atlantic	69.0 72.5	6.7 13.7	5.7 10.1	5.7 22.0	1.0 5.5	1.2 18.8	2.0 10.0	7.2 21.9	1.4 15.6	(493)	31.9
Pacific	3.4 1.1	83.6 50.9	1.4 .7	2.7 3.1	2.0 3.3	1.4 6.3	.7 1.0	4.1 3.6	.7 2.2	(147)	9.5
East North Central	10.9 7.9	10.9 15.4	60.5 73.9	3.5 9.4	4.1 15.4	.9 9.4	1.3 6.0	6.5 13.3	.9 6.7	(340)	22.0
New England	26.0 5.8	3.8 1.7	3.8 1.4	60.6 49.7	1.9 2.2	1.0 3.1	0 0	2.9 1.8	0 0	(104)	6.7
West North Central	8.2 2.6	16.3 10.0	13.6 7.2	3.4 3.9	41.6 67.0	6.1 28.0	2.7 4.0	6.4 4.8	2.7 8.9	(147)	9.3
Mountain	6.3 .2	12.5 .8	12.5 .7	12.4 1.6	0 0	43.7 21.9	0 0	6.3 .6	6.3 2.2	(16)	1.0
West South Central	5.4 1.1	5.4 2.1	2.2 .7	2.2 1.6	3.3 3.3	2.2 6.3	63.4 63.0	7.6 4.2	3.3 6.7	(92)	5.9
South Atlantic	23.3 7.9	4.4 2.9	6.9 3.9	6.3 7.9	1.3 2.2	.6 3.1	5.7 9.0	43.4 46.8	3.1 11.1	(189)	10.3
East South Central	8.0 .9	12.0 2.5	8.0 1.4	2.0 .8	2.0 1.1	2.0 3.1	11.0 7.9	10.0 3.9	4.2 46.6	(50)	3.2
Total living in each region	(468)	(241)	(279)	(127)	(91)	(32)	(100)	(165)	(45)	(1,548)	100

TABLE 3 (continued)
PERCENTAGE DISTRIBUTION FOR REGION OF MEDICAL EDUCATION IN RELATION TO PHYSICIANS' RESIDENCE*

Region of graduation from medical school (education)	Region of medical work (residence)						Total educated in each region				
	Middle Atlantic	Pacific	East North Central	New England	West North Central	Mountain	West South Central	South Atlantic	East South Central	No.	%
	Percent of men physicians										
Middle Atlantic	61.5 55.6	5.7 9.8	7.1 7.1	5.8 16.4	1.0 2.8	3.3 21.9	1.9 5.6	12.9 18.4	1.4 6.5	(810)	81.0
Pacific	0	89.6 34.9	6.3 1.4	0	2.1 1.4	0	0	0	2.1 2.2	(48)	4.8
East North Central	8.1 8.2	11.5 22.0	62.0 69.1	1.3 4.5	4.7 13.5	5.8 28.1	1.7 5.6	5.6 8.8	1.3 6.5	(834)	83.4
New England	17.7 6.0	6.5 4.1	5.1 1.9	23.2 62.7	0 4.1	1.3 3.1	6.3 6.9	6.3 3.4	3.8 6.5	(79)	7.9
West North Central	14.3 6.9	15.2 13.8	13.2 8.1	2.7 4.5	43.6 69.1	2.7 9.4	2.7 4.2	1.8 1.4	1.5 4.3	(118)	11.8
Mountain	9.1 .4	18.2 1.6	0 0	0 0	0 0	45.4 13.6	18.2 2.8	9.1 .7	0 0	(11)	1.1
West South Central	2.9 .9	5.9 3.3	1.5 .5	1.5 1.3	1.5 1.4	2.9 6.3	67.6 63.8	10.8 4.8	5.9 8.7	(88)	8.8
South Atlantic	25.1 18.1	6.0 8.1	6.0 4.8	4.2 10.4	2.4 5.6	2.4 12.5	1.2 2.8	47.3 53.7	5.4 19.6	(167)	16.7
East South Central	12.7 3.9	4.2 2.4	21.1 7.1	0 0	4.2 4.2	1.4 3.1	8.3	18.3 8.8	29.6 45.7	(71)	7.1
Total living in each region	(232) 23.2	(123) 12.3	(210) 21.0	(67) 6.7	(71) 7.1	(32) 3.2	(72) 7.2	(147) 14.7	(46) 4.6	(1,000) (1,000)	100

*In reading this table, note that percentages printed in italics are based on the number of physicians educated in each region respectively (the italicized figures in the total column). The converse type of information can be read from the nonitalic percentages, which are based on the number of physicians living in each region respectively (the nonitalic parenthesized figures in the total row at the bottom of the table).

2. Marital Status of Men and Women Physicians

Table 4 contains data on the marital status of men and women physicians. This table is restricted to respondents.⁴ It is apparent that there are appreciable marital status differences between men and women physicians, and it is noteworthy that the divorce proportion for women physicians, although very high as compared with men, is considerably lower than the divorce rate of the general population.

TABLE 4
PHYSICIANS' MARITAL STATUS

Marital status	Women		Men	
	No.	%	No.	%
Married	594	57.1	663	95.1
Widowed	59	5.7	3	.4
Separated	4	.4	2	.3
Divorced	53	5.1	5	.7
Single	327	31.4	22	3.2
No response	3	.3	2	.3
Total	1,040	100	697	100

TABLE 5
TIME OF MARRIAGE IN RELATION TO TIME OF MEDICAL EDUCATION

Time of marriage	Women physicians		Men physicians	
	No.	%	No.	%
Before medical school	70	6.7	57	8.2
During medical school	87	8.4	73	10.5
After medical school	518	49.8	511	73.2
Did not marry	327	31.4	22	3.2
Year of marriage not given	35	3.4	32	4.6
No response	3	.3	2	.3
Total	1,040	100	697	100

Table 5 indicates that most of the men and women respondents married after the completion of their medical education. Only 15.1 per cent of the 1,040 women and 18.7 per cent of the 697 men married before or during their medical education. A study by Counts and Stalnaker (3), based on a selected sample of medical schools, reported that a third of the students who were attending medical school in 1952-53 were married. Thus, the proportion of students who marry before and during medical school has apparently increased over the years.

Table 6 contains a distribution of the children of the physician respondents. The women had a total of 1,260 children, and the men had a total of 1,541 children. Of the 1,040 women, 710 (68.3 per cent) were married or had been married at the time they answered the questionnaire, but 673 (96.6 per cent) of the 697 men were married or had

⁴The terms "nonrespondent" and "no response" should be carefully distinguished: "nonrespondents" refers to physicians who did not return the questionnaire, but "no response" refers to physicians who did not answer the particular items under consideration in a table. The reader will find both of these terms in some of the tables.

been married at this same time. Thus, there was an average of 1.8 children per woman who was or had been married. The comparable average for men was 2.3 children. It is likely that nearly all physicians who failed to answer the question concerning children had no children. Combining this group with those who answered "none" gives a total of 500 women not having children, or slightly less than half the 1,040 women respondents. Very few of the physician-mothers or physician-fathers had children before or during their attendance at medical school, as shown in Table 7.

TABLE 6
NUMBER OF PHYSICIANS' CHILDREN

Number of children	Women		Men	
	No.	%	No.	%
None or no response	500	48.0	98	14.1
One	125	12.0	88	12.6
Two	220	21.2	242	34.7
Three	119	11.4	165	23.7
Four	55	5.3	66	9.5
Five	13	1.3	24	3.4
Six or more	8	.8	14	2.0
Total	1,040*	100	697	100

*Includes five single women who have adopted children.

TABLE 7
TIME OF CHILDREN'S BIRTH OR ADOPTION IN RELATION TO TIME OF
PARENTS' MEDICAL EDUCATION

Time of birth or adoption	Women physicians		Men physicians	
	Number	% of 540	Number	% of 599
Before medical school	16	3.0	8	1.3
During medical school	3	.6	1	.2
After medical school	504	93.3	562	93.8
One or more of the above	17	3.1	28	4.7
Total number having children	540*	100	599	100
No children or no response	500		98	
Total	1,040*		697	

*Includes five single women who have adopted children.

Burgess and Locke (2) suggest five interrelated factors as "chiefly determining who marries whom": propinquity, conception of the ideal mate, personality need, parental image, and homogamy. Propinquity means that "persons marry in proportions greater than chance those who live near them, those they play with, those with whom they go to school, and those with whom they work" (p. 415). The ideal-mate factor states that people tend to build up in their mind over a long period of time a portrait of the kind of person they desire to marry, which influences their ultimate choice of mate. The personality-need concept hypothecates that persons best satisfy certain basic personality needs through marriage and family life, and that each individual tends to seek a mate who compliments or balances his own personality needs. Parental image indicates that a person tends to marry someone who is similar to his own parent of the opposite sex, and homogamy refers to the tendency "of like to marry like," i.e. persons having similar interests, educational background, religion, and

the like. From a psychobiological point of view, it seems strange that Burgess and Locke have omitted one important variable, biological attraction or sex appeal.

It can be seen by inspecting Table 8 that among women physicians propinquity and homogamy played an important role in the selection of a husband—more than half are married to men in medicine or closely related fields.

TABLE 8
OCCUPATION OF SPOUSE
(Based on the 594 women and 663 men who were married at the time they answered the questionnaire)

Occupation of spouse	Women physicians		Men physicians	
	No.	%	No.	%
Medicine	309	51.9	9	1.4
Professions closely related to medicine	35	5.9	16	2.4
Other professions (law, physics, etc.)	118	19.9	6	.9
Business executives and managers	63	10.6	0	0
Business (white collar group)	17	2.9	9	1.4
Agriculture	13	2.2	0	0
Labor	3	.5	0	0
Miscellaneous	19	3.2	0	0
Unemployed	6	1.0	603	90.9
Housewives	11	1.9	20	3.0
No response				
Total	594	100	663	100

3. Educational Background of Men and Women Physicians

The 1,040 women physicians answering the questionnaire had on the average a more extensive nonmedical education than the 697 men; see Table 9. The term "nonmedical" designates any formal education aside from the medical education.

TABLE 9
TOTAL AMOUNT OF PHYSICIANS' NONMEDICAL EDUCATION

Years of nonmedical work	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%
	No.	%	%	No.	%	%	No.	%	%	No.	%
Less than four years	104	17.5	10.0	18	15.1	1.7	41	12.5	3.9	163	15.6
Four years or Bachelor's	410	69.1	39.5	78	65.6	7.5	202	61.8	19.4	690	66.4
Master's or equivalent	50	8.4	4.8	15	12.6	1.4	63	19.3	6.1	128	12.3
Ph.D. or equivalent	16	2.7	1.5	3	2.5	.3	14	4.3	1.3	33	3.1
Foreign education	2	.3	.2	0	0	0	1	.3	.1	3	.3
No response	12	2.0	1.2	5	4.2	.5	6	1.8	.6	23	2.3
Total	594	100		119	100		327	100		1,040	100
										697	100

*"Other" includes widowed, separated, divorced, and no response.

Since many later tables are similar to Table 9, it may be helpful to describe this table in some detail. Women physicians are divided into three groups: married (M), those who were married at the time they answered the questionnaire; other (O), those who have been widowed, separated, divorced, and those who failed to answer the question on marital status; and single (S), those who were single at the time of the survey. A similar subgroup classification was not made for men, because most of the men were married.

Two types of percentages may be found in Table 9, those based on the number of women in each marital status group and those based on total number of men and women. For example, the upper left-hand cell of the table indicates that 104 (17.5 per cent) of the 594 women who were married at the time of the survey had less than four years of college, and that this subgroup of 104 is 10 per cent of 1,040, the total number of women. The total column for women, shows that 163 (15.6 per cent) of the 1,040 women had less than four years of college. This 15.6 per cent is obtained by adding 10, 1.7, and 3.9—per-cent-of-total figures for the three marital status groups. If 163 is divided by 1,040, the resulting fraction converted to a percentage is 15.7. Thus the method used here in arriving at the total percentage results in a small error, but it has the advantage of making the tables easier to read.

In support of the conclusion that these women had a more extensive nonmedical education than these men is the fact that 32.9 per cent of the men but only 15.6 per cent of the women had less than four years of college, and a greater proportion of the women than the men had college degrees. There are some interesting differences between married and single women; for example, a greater percentage of single women had Master's or Ph.D. degrees.

Table 10 is based on any education up to and including the Bachelor's degree, and it shows that a substantial percentage of these physicians had concentrated their college work in general premedical or the biological

TABLE 10
MAJOR FIELDS OF PHYSICIANS' PREPROFESSIONAL EDUCATION

Undergraduate major field	Women physicians		Men physicians	
	No.	%	No.	%
Premedical, or biological sciences	496	47.7	339	48.6
Physical sciences and mathematics	175	16.8	91	13.1
Social sciences and humanities	83	8.0	30	4.3
Education	16	1.5	0	0
Professional schools (prelaw, business, etc.)	1	.1	3	.4
No response	269	25.9	234	33.6
Total	1,040	100	697	100

TABLE 11
YEARS OF POSTGRADUATE MEDICAL EDUCATION FOLLOWING COMPLETION OF INTERNSHIP

Years of education after internship	Women physicians									Men physicians			
	Married (M)			Other (O)*			Single (S)			Total	Total		
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%		
Five or more	41	6.9	3.9	11	9.2	1.1	32	9.8	3.1	84	8.1	68	9.8
Four	41	6.9	3.9	6	5.0	.6	24	7.3	2.3	71	6.8	58	8.3
Three	68	11.4	6.5	12	10.1	1.2	43	13.1	4.1	123	11.8	104	14.9
Two	94	15.8	9.1	19	16.0	1.8	70	21.5	6.7	183	17.6	106	15.2
One	126	21.3	12.1	23	19.3	2.2	57	17.4	5.5	206	19.8	130	18.7
Some (unspecified)	110	18.5	10.6	29	24.4	2.8	65	19.9	6.2	204	19.6	113	16.2
None	20	3.4	1.9	5	4.2	.5	2	.6	.2	27	2.6	32	7.5
No response	94	15.8	9.0	14	11.8	1.3	34	10.4	3.3	142	13.7	66	9.5
Total	594	100		119	100		327	100		1,040	100	697	100

*"Other" includes widowed, separated, divorced, and no response categories.

sciences. In the last decade the social and physical sciences have gained in prestige, and the medical schools have broadened the base of their admission requirements. Thus a study of more recent graduating classes might show a lower proportion of physicians with backgrounds in the biological area.

A slightly higher fraction of men than women entered practice directly following completion of internship: 7.5 per cent of the men and 2.6 per cent of the women reported no additional training beyond the internship. This is shown in Table 11, where the term "postgraduate" refers to any training in medicine following completion of internship. There are slight sex differences in the number of years of additional medical education, reflecting the different fields of specialization chosen by men and women. It also appears that single women tended to spend slightly more time than married women, on the average, in additional training after the four-year medical program.

TABLE 12
TYPE OF MEDICAL EMPLOYMENT (Income-Producing Work) OF MEN AND WOMEN

Type of employment	Major Type				Secondary Type*			
	Women		Men		Women		Men	
	No.	%	No.	%	No.	%	No.	%
Individual private practice	540	51.9	449	64.5	66	26.8	16	11.9
Partnership practice	72	6.9	114	16.4	9	3.7	5	3.7
Group practice	27	2.6	30	4.3	4	1.6	5	3.7
Hospital salaried employment	124	11.9	34	4.9	36	14.6	16	11.9
Medical school salaried employment	33	3.2	8	1.1	30	12.2	20	14.9
Industrial salaried employment	53	5.1	14	2.0	30	12.2	15	11.2
Federal government medical work and military	32	3.1	28	4.0	12	4.9	21	15.7
State and local government medical work	126	12.1	17	2.4	48	19.5	31	23.3
Other employment	21	2.0	3	.4	11	4.5	5	3.7
No response	12	1.2	0	0	0	0	0	0
Total	1,040	100	697	100	246	100	134	100

*These figures refer to physicians reporting only one secondary type of employment. Of the 1,040 women, 15 others (1.4%) reported more than one secondary type of employment; in addition to these 134 men, 32 (4.6%) of the 697 men reported more than one secondary type of employment.

4. Utilization of the Medical Education

Table 12 shows the major and secondary types of medical employment. Considering the major type of work only, it is evident that a higher proportion of men than women were engaged in private, partnership, and group practice. The women, more frequently than the men, had chosen hospital, medical school, industrial salaried, and state and local government work.

Of the 1,040 women, 767 (73.8 per cent) reported only one type of employment, 246 (23.7 per cent) reported two types, 15 (1.4 per cent) reported more than two types, and 12 (1.2 per cent) failed to answer. Of the 697 men, 531 (76.2 per cent) reported one type, 134 (19.2 per cent) reported two types, and 32 (4.6 per cent) reported more than two types.

TABLE 13
MEDICAL SPECIALIZATION AS RELATED TO MARITAL STATUS

Specialization	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%
Do not specialize	93	15.7	8.9	29	24.4	2.8	51	15.6	4.9	173	16.6
Emphasize a specialty	112	18.9	10.8	23	19.3	2.2	69	21.1	6.6	204	19.6
Limit to a specialty	310	52.1	29.7	57	47.9	5.5	184	56.3	17.7	551	53.1
Not in practice	37	6.2	3.6	1	.8	.1	4	1.2	.4	42	4.0
None of the above	10	1.7	1.0	4	3.4	.4	8	2.4	.8	22	2.1
No response	32	5.4	3.0	5	4.2	.5	11	3.4	1.1	48	4.6
Total	594	100		119	100		327	100		1,040	100

*"Other" includes widowed, separated, divorced, and no response categories.

Table 13 gives data on the extent of medical specialization. This table is based entirely on questionnaire data, but apparently an underestimate of the number of women not in practice has resulted. Note that Table 19 shows 129 of the 1,040 women were out of income-producing work by 1953, and that Table 21 shows 115 women (combining the "none" and "no response" categories) were out of practice in 1952. It is possible that some of the doctors understood the questionnaire item on which Table 13 is based to apply to the past as well as the present, although it is worded in the present tense. Thus this table should probably be interpreted in a restricted way as indicating merely the relative extent of specialization among men and women physicians.

Table 14, restricted to men and women who spent about three-fourths of their time in active practice in 1952, shows the emphasis that is placed on specialization by two different age groups. The results shown in this table are somewhat surprising: a higher proportion of the younger than the older physicians, both men and women, were in general practice rather than specialty practice. A slightly higher proportion of the younger

TABLE 14
EMPHASIS ON MEDICAL SPECIALIZATION BY AGE
(Restricted to 68 per cent of women physicians and 89.7 per cent of men physicians who spent more than 1,500 hours practicing medicine in 1952)

Age and extent of specialization	Women physicians		Men physicians	
	No.	%	No.	%
In general practice				
Under 51 years old	135	28.4	151	29.6
51 and over	46	19.8	26	22.6
Emphasize a specialty				
Under 51 years old	61	12.8	72	14.1
51 and over	38	16.4	26	22.6
Limit practice to a specialty				
Under 51 years old	233	49.1	236	46.3
51 and over	120	51.7	49	42.6
Other*				
Under 51 years old	46	9.7	51	10.0
51 and over	28	12.1	14	12.2
Total				
Under 51 years old	475	100	510	100
51 and over	232	100	115	100

*Includes no response and those for whom the first three categories are not applicable.

than the older men restricted their practice to a specialty, but aside from this exception a higher proportion of physicians over 51 years old is found limiting their practice to a specialty or at least emphasizing a specialty.

This table also presents evidence concerning the intensiveness of medical practice in the two sex groups: 707 (adding 475 and 232) of the 1,040 women and 625 (adding 510 and 115) of the 697 men practiced at least three-fourths time, assuming the average full-time load to be about 2,000 hours per year. Thus, only about two-thirds of the women as compared with nine-tenths of the men practiced at least three-fourths time in 1952.

This table should be interpreted with caution. It is based on three types of activities: income-producing, volunteer work, and time spent in training. It is likely that respondents interpreted these three categories in a variety of ways. The extent to which such activities as staff conferences or administrative routine were or were not considered is unknown. Also, there has been no control here of such variables as the type of medical employment and the fields of specialization.

Table 15 is a distribution of men and women respondents by fields of self-declared specialization. This table represents a categorization of specialization and does not necessarily mean a physician is certified in a specialty area. This table was compiled from both AMA and questionnaire data. If the AMA data failed to list a specialty for a physician, the questionnaire data were used, at least whenever the questionnaire contained

TABLE 15
SELF-DECLARED AREAS OF MEDICAL SPECIALIZATION

Area of specialization	Women physicians		Men physicians	
	No.	%	No.	%
Allergy	8	.8	5	.7
Anesthesiology	49	4.7	14	2.0
Bacteriology	1	.1	0	0
Cardiovascular diseases	1	.1	4	.6
Clinical pathology	5	.5	4	.6
Dermatology	18	1.7	14	2.0
Gastroenterology	1	.1	3	.4
Gynecology	17	1.6	3	.4
Hospital administration	1	.1	4	.6
Industrial practice	7	.7	12	1.7
Internal medicine	81	7.8	88	12.6
Neurological surgery	0	0	2	.3
Neurology	1	.1	1	.1
Obstetrics, Gynecology	97	9.3	42	6.0
Obstetrics	22	2.1	16	2.3
Ophthalmology	15	1.4	18	2.6
Ophthalmology, Otolaryngology, Rhinology	6	.6	16	2.3
Orthopedic surgery	5	.5	14	2.0
Otolaryngology, Rhinology	4	.4	11	1.6
Pathology	28	2.7	16	2.3
Pediatrics	182	17.5	36	5.2
Physical medicine	4	.4	2	.3
Plastic surgery	1	.1	0	0
Proctology	0	0	4	.6
Psychiatry, Neurology	19	1.8	12	1.7
Psychiatry	123	11.8	12	1.7
Public health	48	4.6	12	1.7
Pulmonary diseases	28	2.7	6	.9
Roentgenology, Radiology	16	1.5	21	3.0
Surgery	9	.9	119	17.1
Thoracic surgery	1	.1	1	.1
Urology	1	.1	9	1.3
No specialty indicated	237	22.8	173	24.9
No response	4	.4	3	.4
Total	1,040	100	697	100

the necessary information. Whether or not a physician had dropped out of practice was not considered. We attempted to obtain information on all respondents who had specialized, but it is still possible that some persons in the "no information" or "no response" groups had specialized.

The proportion of men and women who declared a specialty field in their medical practice is about the same. Areas chosen most frequently by women were pediatrics, psychiatry, obstetrics and gynecology, internal medicine, anesthesiology, and public health. As Lowther and Downes point out, these fields of specialization may depend as much on the ease of obtaining hospital appointments as they do on preference (10). Fields chosen by men, listed in order of frequency, were surgery, internal medicine, obstetrics and gynecology, pediatrics, and radiology. Although data are not presented to show this, there are highly significant differences between respondents and nonrespondents of either sex, and between all men and all women ($p < .01$ for each of the three cases). In all, 76.8 per cent of the women and 74.7 per cent of the men declared an area of specialization.

TABLE 16
DISTRIBUTION OF CERTIFIED PHYSICIANS IN VARIOUS FIELDS

Area of specialization	Women physicians		Men physicians	
	No.	%	No.	%
Anesthesiology	17	1.6	4	.6
Dermatology and syphilology	14	1.3	7	1.0
Internal medicine	26	2.5	48	6.9
Neurological surgery	0	0	3	.4
Obstetrics and gynecology	31	3.0	26	3.7
Ophthalmology	8	.8	15	2.2
Orthopedic surgery	3	.3	10	1.4
Otolaryngology	5	.5	15	2.2
Pathology	27	2.6	17	2.4
Pediatrics	82	7.9	26	3.7
Physical medicine and rehabilitation	2	.2	1	.1
Plastic surgery	0	0	2	.3
Preventive medicine	4	.4	11	1.6
Proctology	0	0	1	.1
Psychiatry and neurology	55	5.3	15	2.2
Radiology	14	1.3	18	2.6
Surgery	2	.2	37	5.3
Thoracic surgery	0	0	1	.1
Urology	1	.1	7	1.0
Not certified	741	71.2	431	61.9
No response	8	.8	2	.3
Total	1,040	100	697	100

Table 16 gives data on medical certification. Of the 1,040 women, 291 (28 per cent) were certified, and 264 (37.9 per cent) of the 697 men were certified. The data for this table were compiled from AMA and questionnaire data, just as was done in preparing Table 15. The major fields of certification for women, listed in order of frequency, were pediatrics, psychiatry and neurology, obstetrics and gynecology, pathology, and internal medicine. Fields of most frequent choice for men were internal medicine, surgery, obstetrics and gynecology, pediatrics, radiology, and pathology. Although the data are not presented, there are significant statistical differences between respondents and nonrespondents and between all women and all men ($p < .01$ for each contrast).

TABLE 17
AVERAGE NUMBER OF YEARS IN OR OUT OF MEDICAL PRACTICE SINCE RECEIVING MEDICAL DEGREE

Extent of practice	Women physicians (N = 1,040)		Men physicians (N = 697)	
	Number	Average number of years	Number	Average number of years
Full-time practice	1,030	15.8	681	19.2
Part-time practice	334	6.7	29	6.0
Not in practice	344	4.5	43	2.1

TABLE 18
CONCENTRATION OF PROFESSIONAL ACTIVITIES SINCE RECEIVING MEDICAL DEGREE

Concentration of activity	Women physicians		Men physicians	
	No.	%	No.	%
Full-time only	512	49.1	620	88.9
Part-time only	14	1.3	0	0
Not in practice (at any time)	1	.1	0	0
Full-time and part-time	143	13.8	18	2.6
Full-time and not in practice	168	16.2	32	4.6
Part-time and not in practice	12	1.2	0	0
Full-time, part-time, and not in practice	161	15.5	9	1.3
No response	29	2.8	18	2.6
Total	1,040	100	697	100

Tables 17 through 23 present the most important data for considering the question of whether or not women utilize their medical educations. It is clear that the women practiced less than the men. Table 17 shows that 1,030 (99 per cent) of the 1,040 women answering the questionnaire stated that they had spent some part of their medical career in full-time practice. The most conspicuous difference between women and men is the number of women not in practice: 344 (33.1 per cent) of the 1,040 women stated that they had spent a variable period of time not practicing medicine; the average woman in this group had been out of practice for 4.5 years since receiving the medical degree. Of these 344 women, 246 (71.5 per cent) were married, and most of them had terminated their medical practice for a few years to rear their children.

Table 18 separates the physicians into differentiated categories with respect to patterns of medical work. Only 49.1 per cent of the 1,040 women respondents have been in full-time practice exclusively since receiving the medical degree, as contrasted with 88.9 per cent of the 697 men.

Table 19 gives information on the last period of income-producing work in relation to (for women only) time of graduation from medical school. A few examples of the kind of information to be read from this table are given below. Consider the row labeled "In medical work in 1953," for example. Note in the "Total" columns that 87.5 per cent of the 1,040 women and 98.2 per cent of the 697 men were in income-producing work at the time they answered the questionnaire. By looking along the rows one can determine by the figures in *italics* the percentage of women terminating their income activities in each period who graduated from medical school at a certain time—each column represents a four-year period for time of graduation. For example, of the 24 women who terminated work in the 1946-49 period, 20.8 per cent had graduated between 1925 and

1928, 20.8 per cent between 1929 and 1932, and so on across the row. The columns give the converse information, i.e. the nonitalic figures indicate the percentage of women graduating in each period, classified by the last periods of income-producing work. Thus, reading up the column, of the 215 women graduating between 1925 and 1928, 4.2 per cent indicated a

TABLE 19
PHYSICIANS' LAST PERIOD OF INCOME-PRODUCING WORK IN RELATION TO
TIME OF GRADUATION FROM MEDICAL SCHOOL*

Last period of income-producing work	Per cent of women physicians				Total women citing period of work termination		Total men citing period of work termination	
	Gradua- ting in 1925-28	Gradua- ting in 1929-32	Gradua- ting in 1933-36	Gradua- ting in 1937-40	(No.)	%	(No.)	%
1926-29	100.0 .5	—	—	—	(1)	.1	(0)	0
1930-33	—	100.0 .4	—	—	(1)	.1	(1)	.1
1934-37	80.0 2.3	80.0 .9	80.0 1.1	—	(10)	1.0	(0)	0
1938-41	—	50.0 2.6	50.0 1.1	50.0 1.0	(18)	1.2	(0)	0
1942-45	8.3 1.4	22.2 3.4	22.2 2.8	47.2 5.5	(36)	3.5	(1)	.1
1946-49	20.8 2.3	20.8 2.2	25.0 2.1	33.4 2.6	(24)	2.3	(1)	.1
1950-53	22.0 4.2	14.6 2.6	19.5 2.8	43.0 5.8	(41)	3.9	(10)	1.5
In medical work in 1953†	81.0 88.8	22.2 87.5	27.0 89.4	22.2 85.1	(911)	87.5	(684)	88.8
Never in medical work	25.0 .5	25.0 .4	50.0 .7	0 0	(4)	.4	(0)	0
Total physicians (No.)	(215)	(232)	(284)	(309)	(1,040)	100	(697)	100
graduated from medical school %	20.7	22.3	27.3	29.7	(1,040)	100	(697)	100

*In reading this table, note that the italicized percentages for women graduating in different periods are based on the total number in each terminal period of income-producing work. These N's appear in parentheses in the total column. The converse information can be read from the nonitalic percentages, which show the period of work termination for physicians graduating in each period respectively; these N's appear in parentheses in the bottom row of the table.

†All those not answering item on last year of work were assumed to be still working.

TABLE 20
REASONS FOR CURTAILMENT OF MEDICAL ACTIVITY

Reason	Women physicians						Men physicians	
	Married (M)			Other (O)*			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	%
Pregnancy and family problems	337	56.7	32.4	53	44.5	5.1	6	1.8
Physical disability	85	14.3	8.2	22	18.5	2.1	58	17.7
General dislike of medicine	0	0	0	0	0	0	1	.3
Retired because of age	4	.7	.4	1	.8	.1	2	.6
Other reasons	30	5.1	2.9	5	4.2	.5	13	4.0
No curtailment	183	30.8	17.6	44	37.0	4.2	243	74.3
No response	15	2.5	1.4	4	3.4	.4	9	2.8
Total reasons given†	654	110.1	62.9	129	108.4	12.4	332	101.5
							319	1,115
							107.2	

*"Other" includes widowed, separated, divorced, and no response categories.

†These totals do not equal 100 per cent because some physicians gave more than one reason for curtailing their medical activity.

year between 1950 and 1953 as the last year of income-producing work, 2.3 per cent indicated the 1946-49 period, and so on.

One interesting problem is the question of why physicians drop out of medical practice. Table 20 shows that pregnancy and family problems and physical disability are the most frequent reasons given by women for curtailment of medical activity. Physical disability is first for men. The most telling contrast in Table 20 is the number of physicians who have not curtailed their medical activities—45.1 per cent of the 1,040 women and 87.9 per cent of the 697 men. Note there is a slight discrepancy with Table 18 which shows that 49.1 per cent of the women and 88.9 per cent of the men had been in full-time practice since receiving the M.D. degree. The disagreement between these tables is not appreciable considering the different questionnaire items upon which they are based.

It should be noted that Table 20 is a frequency of "reasons cited" distribution and not a distribution of persons. Some physicians gave more than one reason, so percentages add to more than 100 per cent.

TABLE 21
DISTRIBUTION OF TOTAL HOURS OF PROFESSIONAL ACTIVITY IN 1952
(Includes income-producing and volunteer work and time spent receiving training)

Hours	Women physicians						Men physicians	
	Married (M)		Other (O)*		Single (S)		Total	
	No.	% of Total	No.	% of Total	No.	% of Total	No.	%
3,500 and over	31	5.2	3.0	14	11.8	1.3	34	10.4
3,000-3,499	33	5.6	3.2	7	5.9	.7	30	9.2
2,500-2,999	54	9.1	5.2	15	12.6	1.4	62	19.0
2,000-2,499	146	24.5	13.9	37	31.1	3.6	121	36.8
1,500-1,999	77	13.0	7.4	17	14.3	1.6	29	8.9
1,000-1,499	56	9.4	5.4	9	7.6	.9	11	3.4
500-999	41	6.9	3.9	4	3.4	.4	10	3.1
1-499	52	8.8	5.0	3	2.5	.3	7	2.1
Some (hours not specified)	21	3.5	2.0	3	2.5	.3	1	.3
None	64	10.8	6.2	5	4.2	.5	9	2.8
No response	19	3.2	1.8	5	4.2	.5	13	4.0
Total	594	100		119	100		327	100

*"Other" includes widowed, separated, divorced, and no response categories.

TABLE 22
DISTRIBUTION OF INCOME-PRODUCING AND VOLUNTEER WORK AND TIME SPENT IN TRAINING IN 1952

Hours	Women physicians						Men physicians					
	In income-producing work		In volunteer work		In training		In income-producing work		In volunteer work		In training	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
3,500 and over	57	5.5	0	0	1	.1	114	16.4	0	0	1	.1
3,000-3,499	66	6.3	0	0	1	.1	108	15.5	0	0	0	0
2,500-2,999	111	10.7	1	.1	2	.2	146	20.9	1	.1	0	0
2,000-2,499	282	27.0	1	.1	3	.3	182	26.1	1	.1	1	.1
1,500-1,999	136	13.1	1	.1	0	0	52	7.5	4	.6	0	0
1,000-1,499	84	8.1	8	.8	2	.2	16	2.3	5	.7	1	.1
500-999	64	6.2	40	3.8	6	.6	19	2.7	43	6.5	6	.9
1-499	61	5.9	319	30.7	152	14.6	7	1.0	257	37.0	166	23.8
Some (hours not specified)	23	2.2	76	7.3	50	4.8	27	3.9	47	6.7	33	4.7
None	92	8.8	156	15.0	197	18.9	3	.4	88	12.6	134	19.2
No response	64	6.2	438	42.1	626	60.2	23	3.3	249	35.7	355	51.1
Total	1,040	100	1,040	100	1,040	100	697	100	697	100	697	100

Table 21 is based on total hours spent in income-producing work, volunteer work, and training in 1952. It is apparent that men on the average had worked a greater number of hours than did the women. Figure 2, a cumulative percentage graph, also presents evidence on hours of practice and shows that the men practiced more extensively than the women. Fifty per cent of the women (see point A on the graph) practiced less than 2,100 hours, and 50 per cent of the men (point B) practiced less than 2,750 hours. In evaluating the data, certain factors should be kept in mind — field of specialization and type of practice influence the number of hours worked by both men and women. Note that the "none" and "no response" categories were combined for Figure 2. (See also Table 14 above.)

Table 22 contains separate distributions for income-producing work, volunteer work, and time spent in receiving training. It is clear that the men have spent more time in income-producing work than the women. Table 23 indicates that men and women were about the same with regard to the kinds of volunteer activity chosen. The major discrepancies between men and women occur in the "none" and "no response" categories, and it is likely that the latter also signifies no volunteer activity.

TABLE 23
KIND AND AMOUNT OF PHYSICIANS' VOLUNTEER ACTIVITY

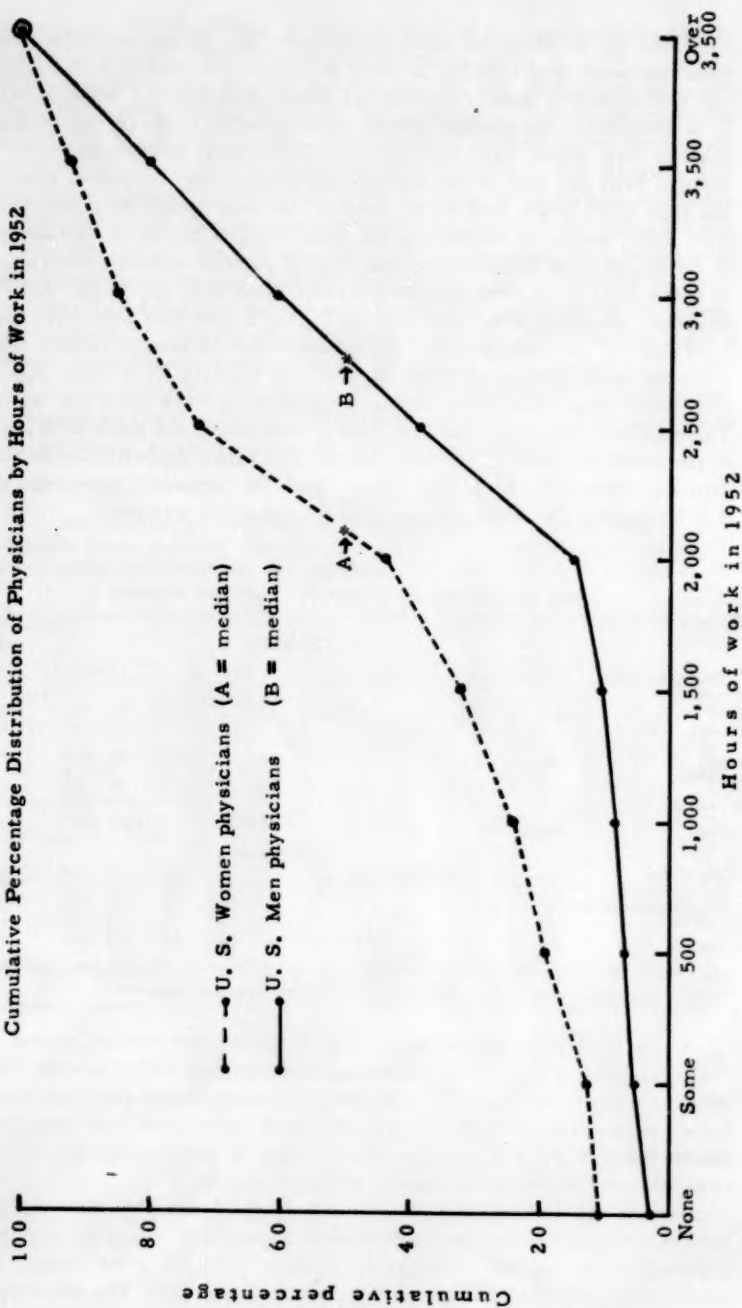
Volunteer Activity	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%
Type of activity											
Medical	396	66.7	38.0	74	62.2	7.1	202	61.7	19.4	672	64.5
Nonmedical	3	.5	.3	0	0	0	1	.3	.1	4	.4
None	32	5.4	3.1	6	5.0	.6	10	3.1	1.0	48	4.7
No response	163	27.4	15.7	39	32.8	3.7	114	34.9	11.0	316	30.4
Total	594	100		119	100		327	100		1,040	100
Place of activity											
Medical school	48	6.3	3.6	11	7.1	.8	35	8.6	2.6	94	7.0
Community hospitals	252	33.1	19.0	48	31.2	3.6	130	31.8	9.8	430	32.4
Other community agencies	236	31.0	17.8	42	27.3	3.2	104	25.4	7.9	382	28.9
Miscellaneous	24	3.2	1.8	8	5.2	.6	14	3.4	1.1	46	3.5
None	32	4.2	2.4	6	3.9	.5	10	2.4	.8	48	3.7
No response	169	22.2	12.8	39	25.3	2.9	116	28.4	8.8	324	24.5
Total	761	100		154	100		409	100		1,324	100

*"Other" includes widowed, separated, divorced, and no response categories.

As for income, it can be seen from Table 24 that women earned less than men, and that married women earned less than single women. More married women are found in the category under \$5,000 per year, and a higher proportion of single women are found in the next two categories—\$5,000 through \$14,999 per year. In the high income ranges, the proportions of married and single women are more similar.

Data on the future plans of these men and women physicians are presented in Table 25. Of the 1,040 women respondents 776 (74.6 per cent) expected to be actively engaged in medical work 10 years hence. The comparable percentage for the 697 men is 91.7 per cent. The majority of

Figure 2
Cumulative Percentage Distribution of Physicians by Hours of Work in 1952



these men and women anticipated that they would pursue the same activity as the one in which they were presently engaged; 6.4 per cent of the women and 1.1 per cent of the men expected to be inactive in 10 years; and 16.5 per cent of the women and 6.2 per cent of the men expressed uncertainty about their future. As would be expected, age is an important variable underlying future plans; see Table 26.

TABLE 24
NET EARNED ANNUAL INCOME (Before Taxes) OF FULL-TIME PHYSICIANS

Salaries	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%
Under \$5,000	163	27.4	15.7	20	16.8	1.9	34	10.4	3.3	217	20.9
\$5,000 to \$9,999	194	32.7	18.7	43	36.1	4.1	140	42.8	13.5	377	36.3
\$10,000 to \$14,999	112	18.9	10.7	31	26.1	3.0	88	26.9	8.5	231	22.2
\$15,000 to \$20,000	51	8.6	4.9	13	10.9	1.2	31	9.5	3.0	95	9.1
Over \$20,000	49	8.2	4.7	8	6.7	.8	23	7.0	2.2	80	7.7
No response	25	4.2	2.4	4	3.4	.4	11	3.4	1.0	40	3.8
Total	594	100		119	100		327	100		1,040	100

*"Other" includes widowed, separated, divorced, and no response categories.

TABLE 25
FUTURE PLANS OF MEN AND WOMEN PHYSICIANS

Expect to be in medicine 10 years from now	Women physicians		Men physicians	
	No.	%	No.	%
Yes, followed by:				
No elaboration	128	12.3	124	17.8
Will pursue same activity as at present	504	54.1	467	67.1
Will return to medical practice	10	1.0	5	.7
Will be certified	4	.4	5	.7
Will practice on limited basis	17	1.6	16	2.3
Will change to teaching or research	3	.3	12	1.7
Will change to public health, community work, or industrial medicine	1	.1	0	0
Will change to administration	0	0	1	.1
Other elaboration	49	4.7	9	1.3
Total responding "yes"	776	74.6	639	91.7
No, followed by:				
No elaboration	36	3.5	5	.7
Expectation of retirement	16	1.5	1	.1
Necessity for further study	3	.3	0	0
Family reasons	4	.4	0	0
Tired of medical practice	2	.2	0	0
Poor health	1	.1	0	0
Other elaboration	4	.4	2	.3
Total responding "no"	66	6.4	8	1.1
Uncertain, followed by:				
No elaboration	47	4.5	15	2.2
Depending on family	33	3.2	0	0
Depending on additional training	4	.4	0	0
Depending on economic necessity	8	.8	1	.1
Depending on location	2	.2	0	0
Depending on health	53	5.1	20	2.9
Other elaboration	25	2.4	7	1.0
Total responding "uncertain"	172	16.5	43	6.2
No response	26	2.5	7	1.0
Total	1,040	100	697	100

TABLE 26
FUTURE PLANS OF PHYSICIANS IN RELATION TO PRESENT AGE
 (Based on the 68 per cent of women physicians and 89.7 per cent of men physicians
 who spent more than 1,500 hours practicing medicine in 1952)

Age and response: expect to be in medicine 10 years from now	Women physicians		Men physicians	
	No.	%	No.	%
Yes				
Under 51 years	431	90.7	484	94.9
51 and over	156	67.3	97	84.4
No				
Under 51 years	4	.8	3	.6
51 and over	24	10.3	3	2.6
Uncertain				
Under 51 years	34	7.2	19	3.7
51 and over	46	19.8	15	13.0
No response				
Under 51 years	6	1.3	4	.8
51 and over	6	2.6	0	0
Total				
Under 51 years	475	100	510	100
51 and over	232	100	115	100

Tables 27 through 29 give data on factors that reflect indirectly both the intensity of medical work and prestige: the number of hospital appointments, participation in professional societies, and the number of publications. The men physicians had a greater number of hospital appointments on the average than did the women physicians. Single women had a slightly higher proportion of one or more hospital appointments than married women, but they were below the men. As in the case of the previously reported discrepancies between the two sexes, a variety of factors were undoubtedly involved: type of medical employment, emphasis of practice, and areas of specialization (Tables 12 through 16).

TABLE 27
NUMBER OF HOSPITAL APPOINTMENTS HELD BY MEN AND WOMEN

Number of hospital appointments held	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% M	% of Total	No.	% O	% of Total	No.	% S	% of Total	No.	%
Six or more	1	.2	.1	0	0	0	2	.6	.2	3	.3
Three to five	74	12.5	7.1	13	10.9	1.2	54	16.5	5.2	141	13.5
One or two	334	56.2	32.1	74	62.2	7.1	190	58.1	18.3	598	57.5
None	120	20.2	11.5	23	19.3	2.2	49	15.0	4.7	192	18.4
No response†	65	10.9	6.3	9	7.6	.9	32	9.8	3.1	106	10.3
Total	594	100		119	100		327	100		1,040	100

*"Other" includes widowed, separated, divorced, and no response categories.

†The no response category includes those who did not respond and those whose answers were indeterminate.

Women did have a slightly greater proportionate membership in honorary societies than men (Table 28), but a higher proportion of men than women were members of the American Medical Association or specialty societies. Furthermore, a greater number of men had been AMA officers, which might be interpreted as one more indication that the men enjoyed somewhat more prestige than the women. Table 29 shows the breakdown of women and men in regard to another prestige factor, the number of scientific publications; there appears to be a higher proportion of very prolific writers among the men.

TABLE 28
PARTICIPATION OF PHYSICIANS IN PROFESSIONAL SOCIETIES

Participation in societies	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%
AMA	473	79.6	45.5	107	89.9	10.3	279	85.3	26.8	859	82.4
Officers	54	9.1	5.2	15	12.6	1.4	34	10.4	3.3	103	9.9
Specialty societies	298	50.2	28.7	75	63.0	7.2	223	68.2	21.4	596	57.3
Members	27	4.5	2.6	15	12.6	1.4	31	9.5	3.0	73	7.0
Honorary societies	117	19.7	11.3	23	19.3	2.2	78	23.9	7.5	218	21.0
Members	3	.5	.3	2	1.7	.2	1	.3	.1	6	.6
Officers											

*"Other" includes widowed, separated, divorced, and no response categories.

TABLE 29
SCIENTIFIC PUBLICATIONS OF MEN AND WOMEN PHYSICIANS

Number of scientific publications	Women physicians									Men physicians	
	Married (M)			Other (O)*			Single (S)			Total	
	No.	% of M	% of Total	No.	% of O	% of Total	No.	% of S	% of Total	No.	%
Papers											
20 or more	21	3.5	2.0	6	5.0	.6	18	5.5	1.7	45	4.3
10-19	25	4.2	2.4	5	4.2	.5	19	5.8	1.8	49	4.7
1-9	186	31.3	17.9	38	31.9	3.7	133	40.7	12.7	357	34.0
Indeterminate number	18	3.0	1.7	2	1.7	.2	12	3.7	1.2	32	3.1
None	243	41.0	23.4	45	37.9	4.3	88	26.9	8.5	376	36.2
No response	101	17.0	9.7	23	19.3	2.2	57	17.4	5.5	181	17.4
Total	594	100		119	100		327	100		1,040	100
Books											
1 or more	7	1.2	.7	6	5.0	.6	10	3.1	1.0	23	2.3
Indeterminate number	1	.2	.1	0	0	.0	0	0	0	1	.1
None	359	60.4	34.5	70	58.9	6.7	190	59.9	18.9	625	60.1
No response	227	38.2	21.8	43	36.1	4.1	121	37.0	11.6	391	37.5
Total	594	100		119	100		327	100		1,040	100

*"Other" includes widowed, separated, divorced, and no response categories.

5. Attitude of Men and Women Physicians Toward Medicine

The questionnaire contained two questions asking reasons for recommending medicine as a career for offspring; these were designed to sample the feelings of physicians about their profession and their attitudes about women physicians. In order to present Tables 31 and 32 on the answers given to these questions, a scheme of classification was used as shown below.

- 1A. *Satisfying life and gratifying work, followed by no further elaboration.*
- 1B. *Work not satisfying or gratifying, followed by no further elaboration.*
- 2A. *Economic advantages.*
- 2B. *Economic disadvantages.*

- 3A. *Social advantages*. "Commands respect from others."
- 3B. *Social disadvantages*. "Interferes with a normal family life."
- 4A. *Spiritual and altruistic advantages*. "Working with a worthy purpose."
- 4B. *Spiritual and altruistic disadvantages*. "Reduces life to a mundane level of insignificance."
- 5A. *Intellectual advantages*.
- 5B. *Intellectual disadvantages*. "Medical study is so exhaustive, you don't have time to develop other intellectual pursuits."
- 6A. *Independence*. "Chance to obtain a livelihood in almost any location where he may want to settle."
- 6B. *Lack of independence*. "Tied down constantly."
- 7A. *No "discrimination" against women*. "Well within the capabilities of healthy women."
- 7B. *"Discrimination" against women*. "Man's job."

Types of humorous answers occurring in this category

- "I dislike female doctors of either sex."
- "Women M.D.'s irk me, though some are good doctors."
- "I'm glad my daughter isn't neurotic enough to want to be a doctor."
- "A silly question. Women were created to be wives."
- "Just because."
- "I have a higher regard for the sex (women)."
- 8A. *No specific reason, but would recommend medicine*. "Yes, if he is really interested."
- 8B. *No specific reason, but would not recommend medicine*. "No I am against it."

Some answers were not adequately covered by the above categories, and examples of these are given below; in the tables these are placed in the "other reason" category, but they might be appropriately classified under a personal or psychological adjustment category.

Positive elaborations not adequately covered by the above-listed categories: "Widely humanizing . . . can lead to a full life, enriched by personal integrity and confidence." "Allows abreactions of neurotic perils of our civilization . . . for unmarried women, allows the expression of the mother instinct."

Negative elaborations not adequately covered by the above-listed categories: "Too all absorbing. Do not develop outside interests and become well-rounded."

"Too hard. Takes too much out of a person too soon."

Table 30 is a distribution of yes, no, and uncertain answers. These women physicians, as one would guess, more often recommended medicine for a daughter than did men physicians, but about the same proportion of men and women physicians (approximately three-fourths) recommended medicine for a son. About 14 per cent of the men—twice the proportion of women—would not want their sons to pursue a medical career.

TABLE 30
PHYSICIAN OPINION OF MEDICINE AS A CAREER FOR DAUGHTER OR SON

Response	Women physicians recommending medicine for				Men physicians recommending medicine for			
	Daughter		Son		Daughter		Son	
	No.	%	No.	%	No.	%	No.	%
Yes	665	63.9	784	75.4	242	34.7	521	74.7
No	187	18.0	74	7.1	370	53.1	98	14.1
Uncertain	63	6.1	28	2.7	30	4.3	32	4.6
No response	125	12.0	154	14.8	55	7.9	46	6.6
Total	1,040	100	1,040	100	697	100	697	100

Table 31 gives information on the reasons for recommending medicine according to the above-described classification system. When the determination of most important or second most important was not possible, the first and second reasons given were scored as the first and the second in order of importance. The most frequent reasons for recommending medicine for either a son or daughter were: satisfying work, spiritual advantage, intellectual advantage, and no specific reason.

Inadequate social rewards (and this may be largely attributed to family conflict) was the most frequently mentioned reason for not recommending medicine for a daughter (Table 32). Men physicians were more likely than women physicians to feel that their daughters would face discrimination. The men were somewhat more vague than women concerning their reasons for not recommending medicine for a daughter, and this is indicated by the frequency of the "no response" and the "other reason" responses.

TABLE 31
PHYSICIANS' REASONS FOR RECOMMENDING MEDICINE TO DAUGHTER OR SON*

Reasons	Women physicians recommending medicine for				Men physicians recommending medicine for			
	Daughter		Son		Daughter		Son	
	No.	%	No.	%	No.	%	No.	%
Most important reason								
Satisfying work	92	8.8	126	12.1	22	3.2	70	10.0
Economic advantage	11	1.1	23	2.2	3	.4	18	2.6
Social advantage and no family conflict	32	3.1	21	2.0	15	2.2	25	3.6
Spiritual advantage and altruism	73	7.0	110	10.6	47	6.7	111	15.8
Intellectual advantage	100	9.6	137	13.2	29	4.2	52	7.5
Independence	6	.6	15	1.4	5	.7	13	1.9
No discrimination against women	12	1.2	...	...	7	1.0	...	...
No specific reason	141	13.5	166	16.0	60	8.6	194	28.1
Other reasons	63	6.1	34	3.3	8	1.1	18	2.6
No response	135	12.9	152	14.6	46	6.6	110	15.8
Total	665	63.9	784	75.4	242	34.7	521	74.7
Second reason								
Satisfying work	73	7.1	97	9.3	10	1.4	41	5.9
Economic advantage	17	1.6	31	3.0	12	1.7	37	5.3
Social advantage and no family conflict	18	1.7	12	1.2	10	1.4	21	3.0
Spiritual advantage and altruism	43	4.1	63	6.1	18	2.7	40	5.7
Intellectual advantage	25	2.4	36	3.5	8	1.1	20	2.9
Independence	14	1.3	12	1.2	3	.4	9	1.3
No discrimination against women	6	.6	...	...	0	0	...	...
No specific reason	43	4.1	43	4.1	10	1.4	18	2.6
Other reasons	67	6.4	47	4.5	5	.7	15	2.2
No response	359	34.6	443	42.5	166	23.9	320	45.8
Total	665	63.9	784	75.4	242	34.7	521	74.7

*Based on the 784 (75.4%) women and 521 (74.7%) men who recommended medicine as a career for a son and 665 (63.9%) women and 242 (34.7%) men who recommended medicine as a career for a daughter.

TABLE 32
PHYSICIANS' REASONS FOR NOT RECOMMENDING MEDICINE TO DAUGHTER OR SON*

Reasons	Women physicians not recommending medicine for				Men physicians not recommending medicine for			
	Daughter		Son		Daughter		Son	
	No.	%	No.	%	No.	%	No.	%
Most important reason								
Work not satisfying	0	0	1	.1	3	.4	3	.4
Economic rewards inadequate	1	.1	2	.2	8	1.1	13	1.9
Social rewards inadequate and family conflict	71	6.8	4	.4	103	14.9	7	1.0
Spiritual rewards inadequate	0	0	0	0	0	0	2	.3
Intellectual rewards inadequate	0	0	0	0	1	.1	1	.1
No independence	5	.5	3	.3	9	1.3	11	1.6
Discrimination against women	27	2.6	...	...	77	11.0	...	...
No specific reason	29	2.8	24	2.3	20	2.9	13	1.9
Other reasons	35	3.4	32	3.0	57	8.2	31	4.5
No response	19	1.8	8	.8	92	13.2	17	2.4
Total	187	18.0	74	7.1	370	53.1	98	14.1
Second reason								
Work not satisfying	1	.1	1	.1	3	.4	3	.4
Economic rewards inadequate	0	0	2	.2	5	.7	6	.9
Social rewards inadequate and family conflict	12	1.2	2	.2	13	1.9	7	1.0
Spiritual rewards inadequate	0	0	0	0	1	.1	1	.1
Intellectual rewards inadequate	0	0	0	0	0	0	1	.1
No independence	2	.2	1	.1	3	.4	7	1.0
Discrimination against women	8	.8	...	...	9	1.3	...	...
No specific reason	7	.7	0	0	9	1.3	2	.3
Other reasons	22	2.1	9	.9	16	2.3	9	1.3
No response	135	12.9	59	5.6	311	44.7	62	9.0
Total	187	18.0	74	7.1	370	53.1	98	14.1

*Based on 74 (7.1%) women and 98 (14.1%) men who would not recommend medicine for a son and 187 (18.0%) women and 370 (53.1%) men who would not recommend medicine as a career for a daughter.

D. SUMMARY

No attempt has been made in presenting the data to analyze its significance in any extensive manner. It is hoped that the tables and their explanations are sufficiently clear to enable their use by a variety of readers interested in the problems of medical education.

Other studies have reported that women physicians spent more time in the practice of medicine than does this study. A number of these other studies, spread in time, have indicated that about 90 per cent of the women practice full time in any given year—a figure that is not necessarily inconsistent with the findings of the present study since intensiveness of medical practice was not previously taken into account. The over-all results of this study indicate that most women practice medicine on a full- or part-time basis, although they do not, including even single women, equal men in the volume of medical work. The writers believe that the data of this study show that women physicians are making a substantial contribution to the nation's health.

The summary of major findings that follows is limited to data obtained from questionnaires returned by the 697 U.S. men and the 1,040 U.S. women. Data for foreign-educated physicians may be secured from the American Documentation Institute. In most characteristics single women occupied a position between married women and men, but they were more like married women, and the foreign group as a whole was slightly below the U.S. group in all characteristics studied.

A. Characteristics observed in the sample of physicians:

1. The women were slightly older on the average than men, although they had graduated from medical school during the same period of time.

2. A slightly higher proportion of the women than the men had settled in the larger metropolitan communities, i.e. communities having a population of at least 500,000 people.

3. At the time of the study about 57 per cent of the women and 95 per cent of the men were married. A slightly lower percentage of the women (15 per cent) than the men (19 per cent) had married before or during their medical educations.

4. The divorce rate for women physicians (5 per cent) was higher than the divorce rate for men physicians (1 per cent), but it was lower than the divorce rate of the general population.

5. Men physicians on the average were the parents of a greater number of children than women physicians. There was an average of 1.8 children per U.S. woman who was or had been married. The comparable figure for men was 2.3.

6. The women had on the average a more extensive education in fields other than medicine than did men: 16 per cent of the women and 33 per cent of the men had less than four years of college. The major undergraduate fields for both men and women were "premedical" or biological science.

7. A higher fraction of men (8 per cent) than the women (3 per cent) had entered practice directly following completion of the internship.

8. The men enjoyed somewhat more prestige on the average than women as shown by their relatively higher salaries, greater number of hospital appointments, publications, and memberships in professional societies. The reader will note that many of the other findings also indicate a prestige differential.

B. Utilization of the medical education

1. A significantly larger proportion of men than women (85 vs. 61 per cent) were engaged in individual private, partnership, and group practice; and conversely a greater proportion of women than men were engaged in salaried employment. This interpretation is made on the basis of the major type of employment only: about 24 per cent of the women and 19 per cent of the men reported a secondary type of employment.

2. An appreciably higher percentage of the women (13 per cent) than the men (2 per cent) physicians were not in income-producing work on a part- or full-time basis at the time of the study (see Table 19).

3. About 44 per cent of the women and 14 per cent of the men practiced less than 2,000 hours in 1952. This difference showed up principally in income-producing work, and not volunteer activities or time spent in training. The extent to which physicians failed to include certain significant activities (e.g. staff conferences, administrative routine) could not be determined.

4. A significant proportion of the women (33 per cent) as compared with the men (6 per cent) had spent a variable period of time not in practice since receiving their medical degrees. The average woman in this group had been out of practice for 4.5 years, and the average man in this group had been out of practice for 2.1 years. Only 49 per cent of the women, as contrasted with 89 per cent of the men, had been in exclusive full-time practice since receiving the medical degree.

5. Pregnancy and family problems and physical disability were the major reasons underlying the curtailment of medical activities by women. Physical disability was the major reason for men (see Table 20).

6. Areas of self-declared specialization chosen most frequently by women were pediatrics (18 per cent), psychiatry (12 per cent), obstetrics and gynecology (9 per cent), internal medicine (8 per cent), and anesthesiology (5 per cent). The most popular areas for men were surgery (17 per cent), internal medicine (13 per cent), obstetrics and gynecology (6 per cent), and pediatrics (5 per cent).

7. As regards certification in specialty fields, 28 per cent of the women and 38 per cent of the men were certified. Major fields of certification for women were pediatrics (8 per cent), psychiatry and neurology (5 per cent), and obstetrics and gynecology (3 per cent). Fields of most frequent choice for men were internal medicine (7 per cent), surgery (5 per cent), obstetrics and gynecology (4 per cent), pediatrics (4 per cent), and radiology (3 per cent).

C. Future plans and attitudes of physicians about medicine

1. The majority of the men (92 per cent) and women (75 per cent) expected to be actively engaged in medical work 10 years from the time they answered the questionnaire. Most men and women physicians thought they would be employed in the same type of medical activity as they were engaged in at the time they answered the questionnaire.

2. Although 64 per cent of the women physicians would recommend medicine as a career for a daughter, only 35 per cent of the men physicians would recommend medicine for a daughter. About three-fourths of both the men and women physicians would recommend medicine for a son. The most frequent reasons for recommending medicine for either a son or a daughter were: satisfying work, spiritual advantage, intellectual stimulation, and no specific reason (e.g. "Yes, if that is what he wants to do.") Inadequate social rewards (and this may be largely attributed to family conflict) was the reason most often mentioned for not wanting a son or daughter to follow a medical career.

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THE QUESTIONNAIRE FOR THE SURVEY

1. Name _____
(Last) (First) (Middle)

(If you are a woman, and married, please give the name which you use professionally on the line above and give your other name on the line below, indicating whether it is your maiden or married name.)

Maiden Name _____

2. Address _____

3. Year of Birth _____ 4. Sex: Male _____ Female _____

- 5. Marital Status (Check One)**

Single _____ Married _____ Widowed _____ Separated _____ Divorced _____

Year of first marriage_____

If spouse is employed, state occupation _____

Children: Years of birth _____

Sections 6, 7 and 8 concern the various types of professional activities in which medical doctors engage. Information about your present (or most recent) income-producing medical work is requested in Section 6. A description of volunteer work is asked for in Section 7. Please include any volunteer work in which your medical training has been of particular value even though the activity ordinarily might not be considered medical. Section 8 concerns medical training. It includes items for premedical training, medical training for your MD, and later medical training.

6. **Income-producing medical work.** Please fill in the following section describing your present income-producing medical work. (If you are not now engaged in such work, please fill in for the last year in which you were. What year was this? _____)

Location: _____

(City)

(State)

Type of employment (Check as many as necessary)

Individual Private Practice

_____ Industrial Salaried Employment

Partnership Practice

Federal, Military

Group Practice

Federal Government Medical Work

Hospital Salaried Employment

State Government Medical Work

Medical School Salaried Employ.

Local Government Medical Work

____ Other, please specify _____

If you have checked more than one type employment, which one is (was) your major source of earned income?

Type of work: Please mark with a double check, √√, the activity requiring the major portion of your time. Mark with a single check, √, other activities required of you.

Clinical Practice

_____ Teaching

Administration

Research

What hospital appointments do (did) you hold at this time? _____

Annual net earned income before taxes

_____ Under \$5,000

\$15,000 to \$20,000

\$5,000 to \$9,999

Over \$20,000

\$10,000 to \$14,999

7. Volunteer medical work. Please describe any such work in which you have engaged.

8. Training.

a. Premedical or College Training

Training	No. of Years Completed or Degree Received	Dates	School	Major Field of Study
Undergraduate				
Graduate (other than medical)				

b. Medical Training

Training	Dates	School or Hospital and Type
MD		
Internship		
Residencies or Assistantships		
Specify any additional training		

9. Amount of time spent in professional activities in 1952.

Activity	Hours per Week (Average)	Number of Weeks
Income-producing		
Volunteer		
Receiving Training		

10. Number of years spent in professional activities since you received your MD.

Amount of Time	Number of Years
Full-time	
Part-time	
Not at all	

If you have limited or curtailed your professional activities at some time, what were the reasons for this?

11. Future plans. Do you expect to be active in medical work ten years from now?

Yes _____ No _____ Uncertain _____

If your answer is "Yes," please describe the type of career you expect to have at that time. (The points covered in Item 6 may be of help in writing the description.) If your answer is "No," what are the reasons behind your decision? If you are "Uncertain," what factors might affect your decision?

12. To what extent do you specialize in your practice?

_____ Do not specialize, maintain a general practice
 _____ Emphasize a specialty
 _____ Limit practice to a specialty
 _____ None of the above apply. Please explain _____

Name of specialty _____

Are you certified? _____ If so, year of certification _____

13. Professional organizations and societies.

Organizations	Membership	Offices You Have Held
AMA through state and local chapters		
Specialty societies, please list		
Honorary societies		
Alpha Omega Alpha		
Sigma Xi		

14. Scientific Publications

Have you presented any papers at scientific meetings or published articles in scientific journals? _____

If yes, approximately how many? _____

Have you published any scientific books? _____

If yes, please list _____

15. Would you recommend medicine as a career for a son of yours? _____
 Why? _____

16. Would you recommend medicine as a career for a daughter of yours? _____
 Why? _____

